

ABSTRACT OF THE DISCLOSURE

An all-fiber broadband polarization combiner is disclosed based on a Mach-Zehnder (MZ) structure. The entry coupler to the MZ is a polarization pump combiner (PPC) and the exit coupler is a wavelength division multiplexer (WDM) coupler. The
5 two couplers are interconnected with two standard SM fibers which form the arms of the central zone of the MZ. Two polarization maintaining (PM) fibers are spliced to the two input arms of the PPC and are oriented so that polarization X in one PM fiber is orthogonal to polarization Y in the other PM fiber. And the MZ is induced with a phase shift $\Delta\phi$ of π between the two arms of the central zone.